ViTE

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User Manual

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Chapter 1

Introduction

This document introduces *ViTE*, a software for visualising traces with a graphic interface. It can print the format of Pajé traces and can export a trace in a svg file.

ViTE was done for a project by students in a French engineering school, for INRIA searchers because the current software Pajé was not maintained and had some features not implemented yet.

The figure 1.2 is an example of a trace you can watch with *ViTE*.

Figure 1.1: Example of a trace on linux (ubuntu 8.04)

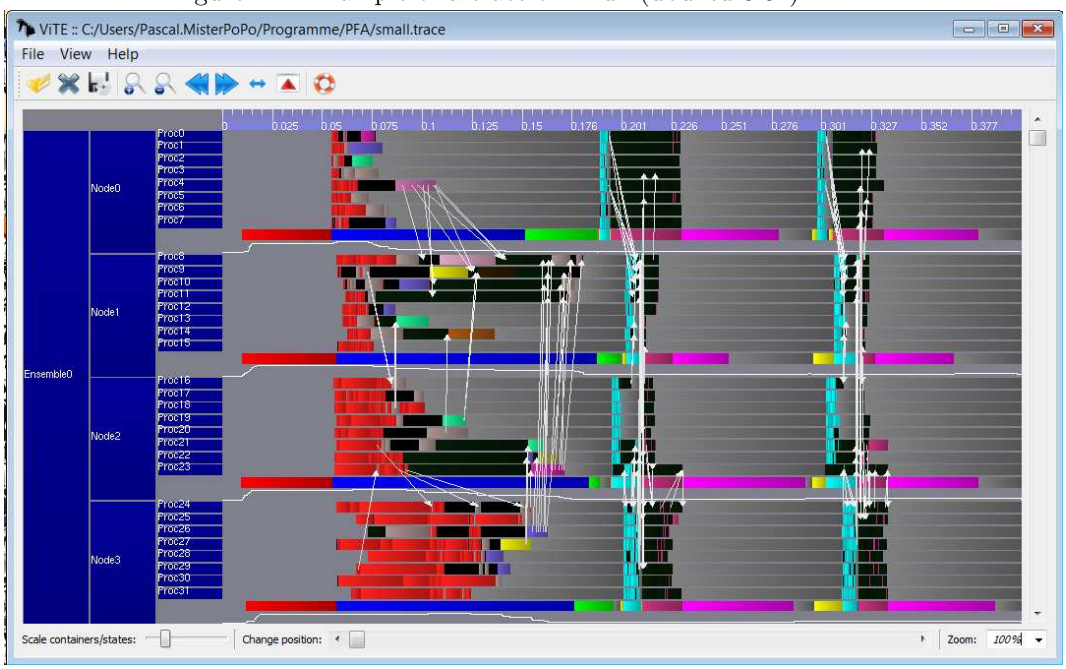
ViTE :: C:/Users/Pascal.MisterPoPo/Programme/PFA/small.trace
File View Help
0 0.025 0.05 0.075 0.1 0.125 0.15 0.176 0.201 0.226 0.251 0.276 0.301 0.327 0.352 0.377
Ensemble0
Node0
Node1
Node2
Node3
Proc0 Proc1 Proc2 Proc3 Proc4 Proc5 Proc6 Proc7
Proc8 Proc9 Proc10 Proc11 Proc12 Proc13 Proc14 Proc15
Proc16 Proc17 Proc18 Proc19 Proc20 Proc21 Proc22 Proc23
Proc24 Proc25 Proc26 Proc27 Proc28 Proc29 Proc30 Proc31
Scale containers/states:
Change position:
Zoom: 100%

Figure 1.2: Example of a trace on windows Vista

Chapter 2

How to use

2.1 Compilation/Installation

ViTE uses the Qt library for its graphic window and OpenGL library for the trace graphic render. You need to get the last version of these library files on your system to run properly the software.

ViTE can also be compiled from its sources: please read the following instructions to compilate source code depending on your operating system.

2.1.1 Linux

In order to install *ViTE*, you need to have the following libraries on your computer:

- libqt4-dev.
- libqt4-opengl-dev.
- libglut3-dev.

For Debian system only, use:

```
sudo apt-get install libqt4-dev libqt4-opengl-dev libglut3-dev
```

Then, you go on the source directory and you hit `./configure` and then `make` on the console.

The configure script is useful because on some implementation, in order to compilate Qt sources, you have qmake or qmake-qt4.

For example, if the directory of *ViTE* is in your home, hit:

```
cd vite/source && ./configure && make
```

The binary will be in the `bin/` directory under the name of `vite`.

2.1.2 MacOS

Should be good on MAC-OS because these libraries are on MAC (not tested yet).

2.1.3 Windows

There is a tar.gz archive in the source directory which contains:

- a file **how_to_install.txt** which lead you for the installation. We recommand you to have a good internet connexion and at least 1.6 Gb because Qt is greddy :) . The manipulations were done on windows Vista but it should run on a windows XP.
- the **Makefile** for compiling.
- three folders **include**, **dll** and **lib** which are useful for installing glut (the library used to write in the interface).

The tar.gz file can be extracted by 7-zip or winrar for example.

2.2 First use

2.2.1 Launching ViTE

After compiling the sources, you can type on your console the path to vite, which is `bin/vite` if you have just compiled from the source directory.

When you launch *ViTE* without any options (these will be described in the section 3), you will have a window like the one in the figure 2.1:

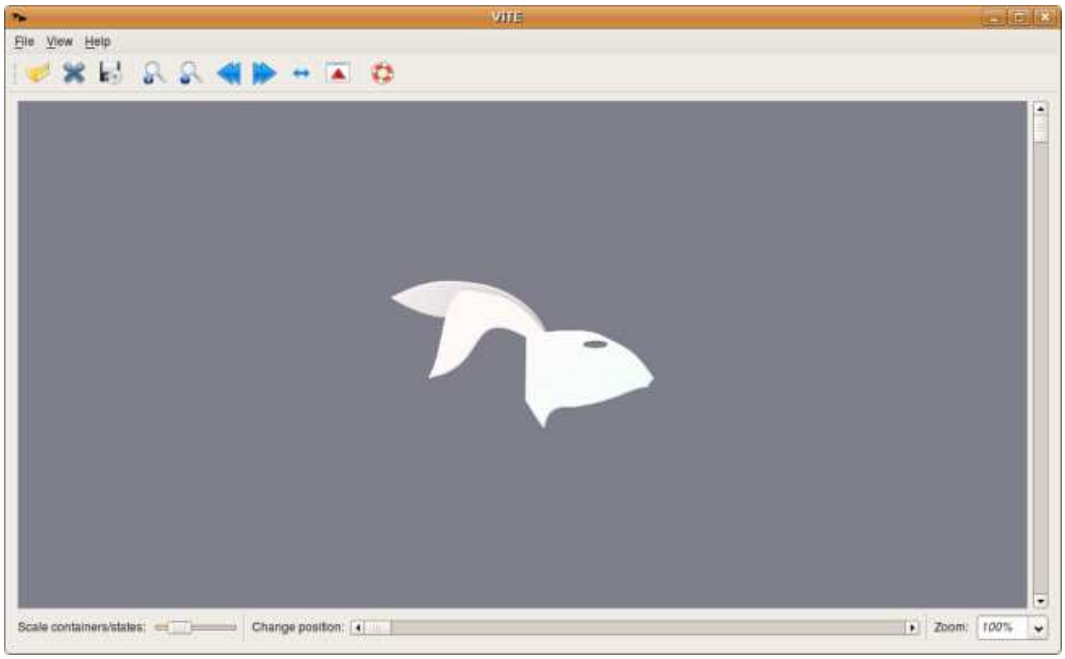

Figure 2.1: Launching of Vite

2.2.2 Open a file

You go on the `File` menu and click on `Open`. A dialog box will appear and you will have to choose the file you want to open.

After choosing it, you must click on `Open` to open the file or `Cancel` if you do not want to open the selected file.

If you try to open a file which is not recognised by *ViTE*, an error message will be displayed.

2.2.3 Export a file

Figure 2.2: The export option box.

After opening a file, you can export it by choosing `Export` on the `File` menu. Extra informations can be added in the dialog box:

- if `export a part of the trace` is enable, you can add floating values in both fields min and max time. By default, `min time` and `max time` are initialized respectively with the minimum and the maximum displayed entity time.
- if `More options` is enable, you can add the following floating values
- `wide` : to widden elements in the output (an element wide is wide-value time its time-duration).
- `grow` : to heighten elements in the output (the heighten is the height of a container in pixel)

If you do not know or do no want to change the values, let the pre-defined ones. The next dialog box will invit you to choose the name of the destination file and save it.

2.2.4 Close a file

You can close a trace file on choosing `Close` on the `File` menu. The window will be the same as if no file is shown.

2.2.5 Navigation under the trace

You can change the position and the scale by moving the horizontal and vertical scroll bars.

Also, you can zoom in or out by clicking in the zoom button. You can select an area with the mouse to zoom in. You can also directly set a zoom level by selecting a zoom level in the bottom right. It is also possible to select an area to zoom by clicking, and keeping the clic while moving, the zoom will be in the rectangle defined by the beginning and the end of the clic. The use of the right clic undo the previous zoom.

You can go to the beginning or the end of the trace by clicking on the left and rigth arrow button and view the whole trace by clicking on the `Show all` button.

You can see the trace in fullscreen going on the `View` menu and picking `fullscreen`. Moreover, it is possible to hide the links and/or the events using the *No arrow* and *No Event* buttons of the toolbar. An other option is to get informations about an event, a state, a communication in the trace by clicking over this element on the screen. If a lot a element are grouped, you may be force to zoom to be able to get the right information about the elmeent.

2.2.6 Other options

You can show or hide the informations window by chosing `Show infos window` in the `View` menu.

You can hide the warning messages shown in the informations window by chosing `No warning` in the `View` menu.

Chapter 3

Shortcuts

3.1 Launching by command line

There are useful shortcuts for launching *ViTE* or functionalities of *ViTE*. For example, the export of a file in a svg format can be done without launching the graphical interface, in one line.

Shortcut	Action	Example
-f [file path]	Open a file.[1]	./vite -f example.trace
-h	Display the help	./vite -h
-a [file path]	Open the file and display all of it.	./vite -a example.trace
[file path] -t ([start]):([end])	Open the trace file and display it in the interval (in seconds). [2]	/vite file -t [0]:[10]
-f [path-source] -e [path-dest]	export the trace file in the svg format.	./vite -f in.trace -e out.svg
-f [source] -e [dest] -t ([start]):([end])	export the trace file in the svg format in the interval given.	./vite -f in.trace -e out.svg -t [1]:

[1] The -f is facultative : ./vite filename works too.
[2] There could be no time_init or time_end : ./vite file -t :[1]

3.2 In the graphical interface

Here is a list of all the shortcuts implemented in *ViTE* that you can find in the menu bar :

Shortcut	Action
CTRL+O	Open the open file dialog box.
CTRL+W	Close the file.
CTRL+E	Open the export file dialog box.
CTRL+S	Save the current configuration for the file opened.[3]
CTRL+Q or ALT+F4	Quit *ViTE*.
CTRL+SHIFT+A	Show all the trace.
Mouse wheel or + or -	Horizontal zoom in or out.
CTRL + Mouse wheel or + or -	Quick horizontal zoom in or out.
ALT + Mouse wheel	Quick vertical zoom in or out.
HOME	Show the start of the trace.
END	Show the end of the trace.
PAGE UP (resp. PAGE DOWN)	Move the visualisation to the left (resp. right).
UP, DOWN, RIGHT, LEFT	Move the trace.
CTRL + UP, DOWN, RIGHT, LEFT	Quickly move the trace.
SELECT AN AREA WITH LEFT CLIC	Select a square area of the view and display it.
RIGHT CLIC	Backup the previous square area selection view.

[3] Not yet implemented

Chapter 4

Authors

ViTE was written by a group of students from the French engineering school ENSEIRB (http://www.enseirb.fr/) for the INRIA.

These students are:

- Kevin COULOMB.
- Johnny JAZEIX.
- Olivier LAGRASSE.
- Jule MARCOUEILLE.
- Pascal NOISETTE.
- Arthur REDONDY.
- Clément VUCHENER.

The documentations were also written by them.

Chapter 5

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Chapter 6

FAQ

Question : **How can I help improving this beautiful software ?**

Answer : ViTE *is not perfect yet. Some features that could be implemented are written in the technical manual but it is just a start and a lot of other things can be done.*

Question : **I have some problems when I want to see a trace because the window glitters ?**

Answer : *If you use Compiz, you have to disable it while using* ViTE.

Question : **Why do I only have a black screen when I try to open a trace ?**

Answer : *Are you sure the trace is right ? Some errors of meaning may have not been detected in the data structure.*

Question : **Why does a new window open when I open a trace?**

Answer : *Make sure you close the current trace before opening the following. Or it will open it in another window in order to let the user visualize both traces.*

Question : **Why can't I open my svg export?**

Answer : *The export of a trace in svg format can be more than three times bigger than the trace file. So if the trace you want to export is big the svg reader can be slow. You can try using another software to open it (inkscape, mozilla, ...) or convert the svg in a png file (this feature is not include in* ViTE*) or export only a part of the trace.*

Question : **Why does not ViTE run well?**

Answer : *The export of a trace in svg format can be more than three times bigger than the trace file. So if the trace you want to export is big the svg reader can*

be slow. You can try using another software to open it (inkscape, mozilla, ...) or convert the svg in a png file (this feature is not include in ViTE*) or export only a part of the trace.*

Question : **I am on Windows and I double click on the executable and an error tell me that a dll is not found?**
Answer : *If you launch* ViTE *by the Qt prompt, the path to find dll libraries is changed and these dll missing are found. A solution is to find (there are on your computer) the dll missing and to copy them in the bin/ folder of* ViTE*.*

Question : **Why does not ViTE run well?**

Answer : *Check if ViTE is runnable on your computer (cf configuration).*